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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,785	10/19/2001	Kunimitsu Aoki	011415	6974
23850	7590	12/11/2003	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP			MENGISTU, AMARE	
1725 K STREET, NW			ART UNIT	
SUITE 1000			PAPER NUMBER	
WASHINGTON, DC 20006			2673	

DATE MAILED: 12/11/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,785

Applicant(s)

AOKI ET AL.

Examiner

Amare Mengistu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 & 2 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____ .
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Oikawa et al (5,504,622)** in view of **Baker et al (6,186,648)**.

As to claims 1 and 2, **Oikawa et al** (hereinafter **Oikawa**) clearly teaches HUD device by which an image displayed on a windshield of a vehicle and a virtual image of the image projected on the windshield (fig.8) comprising: a correction member (fig.8 (18)), disposed between the windshield (fig.8 (2)) and the display source (fig.8 (4)), for transmitting a light of the image (fig.8 (P1, P2)) there through so as to correct the image to be projected on the windshield so that distortion of the image, which is seen from the eye point (fig.8 (10), col.4, lines 65- col.5, line 1, lines 37-40); wherein the correction member is formed by extracting a specific portion, which can cancel out the distortion of an image (col.4, lines 65- col.5, line 1, col.5, lines 55-60) .

Oikawa teaches a correction member is parabolic optical reflective face (fig.8 (18)); please note: optical could be a lens), but has failed to teach the curvature is a single radius to extract a specific portion. However; the patent of **Baker et al** (hereinafter **Baker**) clearly teaches that for optical reflector to have a single radius curvature is well known (col.7, lines 20-24, 29-37, col.11, lines 32-33).

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to substitute **Oikawa** correction member with **Baker's** a single radius curvature reflector, because this will increase the concentrating power of the optical system and enhancing the collectable radiant flux at the specific target portion.

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Yamamura** (5,013,135) in view of **Baker et al** (6,186,648).

As to claims 1 and 2, Yamamura clearly teaches HUD device by which an image displayed on a windshield of a vehicle and a virtual image of the image projected on the windshield (see, Abstract; figs.1, 3,6) comprising: a correction member (figs.1, 3,6 (3)), disposed between the windshield (figs.6 (19,23)) and the display source (fig.1 (2)), for transmitting a light of the image there through so as to correct the image to be projected on the windshield so that distortion of the image, which is see from the eye point (fig.1,3,6, col.2, lines 48- col.3, lines 10, col.4, lines 49-65, col.8, lines 1-4).

Yamamura teaches a correction member is parabolic optical reflective face (figs. 1,3,6 (3)), but has failed to teach the curvature is a single radius to extract a specific portion. However; the patent of **Baker et al** (hereinafter **Baker**) clearly teaches that for optical reflector to have a single radius curvature is well known (col.7, lines 20-24, 29-37, col.11, lines 32-33).

4. Therefore, it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to substitute **Yamamura** correction member with **Baker's** a single radius curvature reflector, because this will increase the

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concentrating power of the optical system and enhancing the collectable radiant flux at the specific target portion.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amare Mengistu whose telephone number is (703) 305-4880. The examiner can normally be reached on M-F, T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.


Amare Mengistu
Primary Examiner
Art Unit 2673

A.M

Dec. 5, 2003